IN THE CLAIMS

1-5   (Cancelled.)

6.   (Previously Presented)   A computer-readable medium storing a set of instructions capable of being executed by a processor arrangement to implement a method for quantifying a quality of service in a cellular network, the method comprising:

identifying a plurality of locations in a service area having degraded service;

assigning an average service level value to each identified location;

summing the average service level values of each identified location;

summing the level of service for all locations throughout the service area; and

dividing the sum of the average service level values by the level of service throughout the service area to obtain a value representing a first measure of the quality of service for the service area.

7.   (Previously Presented)   The computer-readable medium according to claim 6, wherein the method further comprises determining the ratio of said locations receiving degraded service to said total number of locations served by said service area to obtain a value representing a second measure of the quality of service for the service area.

8.   (Previously Presented)   The computer-readable medium according to claim 6, wherein the step of identifying a plurality of locations in a service area with degraded operations further comprises:

determining interference level for each location in the service area from data defining signals received at the location;

determining a received signal level necessary for providing a quality transmission at each location;

determining path loss between each receiving location and each transmitting station;

determining a level of transmitted signal required from each transmitting station to each receiving location based upon said received signal level necessary for providing a quality transmission at the location and path loss between the location and each base station; and

comparing available transmission power to the level of transmitted signal required.

9. (Previously Presented) The computer-readable medium according to claim 6, wherein the step of identifying a plurality of locations in a service area having degraded operations further comprises:

summing the levels of all transmitted signals from each transmitting station, and

comparing the sum of the levels of all transmitted signals from each transmitting station to the maximum transmission power of said station.

10. (Previously Presented) The computer-readable medium according to claim 6, wherein the step of identifying a plurality of locations in a service area having degraded operations comprises:

determining a level of transmitted signal required from each transmitting station to each location at which signals are expected based upon said received signal level necessary for providing a quality transmission at the location and path loss between the location and each transmitting station;

summing the levels of all transmitted signals from each transmitting station; and

comparing the sum of the levels of all transmitted signals from each transmitting station to the maximum transmission power of the transmitting station.

11. (Previously Presented) The computer-readable medium according to claim 6, wherein the step of identifying a plurality of locations in a service area having degraded operations comprises:

determining total interference for each base station in the service area from data defining signals received at the base station;

determining a received signal level necessary for providing a quality transmission at each base station;

determining path loss between each location and each base station;

determining a level of transmitted signal required from each location to each base station at which signals are expected based upon said received signal level necessary for providing a quality transmission at the base station and path loss between the location and each such base station; and

comparing channel transmission power to the level of transmitted signal required.

12. (Previously Presented) The computer-readable medium according to claim 6, wherein the method further comprises assigning a value representative of the expected level of service to each location having degraded service; and

combining said assigned values of levels of service at each location in the service area at which degraded operations may be expected to obtain an overall value representative of service degradation.

13. (Previously Presented) A method of quantifying the quality of service in a wireless communication system comprising:

identifying locations in the service area having degraded operations;

assigning an average service level value to each location;

summing the average service level values of each identified location;

determining the level of service throughout the service area; and

determining the ratio of said locations receiving degraded service to said total number of locations served by said service area to obtain a first measure of the quality of service for the service area; and

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dividing the sum of the average service level values by the level of service throughout the service area to obtain a second measure of the quality of service for the service area.

14.　(Previously Presented)　　The method of claim 13, wherein the step of identifying a plurality of locations in a service area with degraded operations further comprises:

determining interference for each location in the service area from data defining signals received at the location;

determining a received signal level necessary for providing a quality transmission at each location;

determining path loss between each receiving location and each transmitting station;

determining a level of transmitted signal required from each transmitting station to each receiving location based upon said received signal level necessary for providing a quality transmission at the location and path loss between the location and each base station; and

comparing available transmission power to the level of transmitted signal required.

15.　(Previously Presented)　　A testing system adapted for quantifying quality of service for a wireless communication system having a plurality of locations therewithin, the system comprising a processor programmed to:

identify a plurality of locations in the service area having degraded operation;

assign an average service level value to each identified location;

sum the average service level values of each identified location;

sum the level of service throughout the service area;

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determine the ratio of said locations receiving degraded service to said total number of locations served by said service area to obtain a value representing a first measure of quality of service; and

dividing the sum of the average service level values by the level of service throughout the service area to obtain a value representing a second measure of quality of service.

16.   (Previously Presented)   The testing system of claim 15, wherein the step of identifying a plurality of locations in a service area with degraded operations further comprises:

determining total interference for each location in the service area from data defining signals received at the location;

determining a received signal level necessary for providing a quality transmission at each location;

determining path loss between each receiving location and each transmitting station;

determining a level of transmitted signal required from each transmitting station to each receiving location based upon said received signal level necessary for providing a quality transmission at the location and path loss between the location and each base station; and

comparing available transmission power to the level of transmitted signal required.

17.   (Presently Amended)   An apparatus for determining a quality of service for wireless communication network having a plurality of locations, the apparatus comprising a processor circuit programmed to:

assigning an average service level value to a plurality of locations having degraded service in a service area;

sum the average service level values of each identified location;

sum the level of service for all locations throughout the service area; and

divide the sum of the average service level values by the level of service throughout the service area to obtain a ~~first~~ value representing a <u>second</u> measure of the quality of service for the service area.

18.   (Presently Amended)   The apparatus of claim 17, wherein the processor circuit is further programmed to obtain the ratio of said locations receiving degraded service to said total number of locations served by said service area to determine a ~~second~~ <u>first</u> measure of the quality of service.

19. (Previously Presented)   A computer-readable medium storing a set of instructions capable of being executed by a processor arrangement to identify degraded service in a wireless network, the method comprising:

determining interference level for each location in the service area from data defining signals received at the location;

determining a received signal level necessary for providing a quality transmission at each location;

determining path loss between each receiving location and each transmitting station;

determining a level of transmitted signal required from each transmitting station to each receiving location based upon said received signal level necessary for providing a quality transmission at the location and path loss between the location and each base station; and

comparing available transmission power to the level of transmitted signal required.

20. (Previously Presented)   The computer-readable medium of claim 19, wherein the step of identifying degraded service further comprises:

summing the levels of all transmitted signals from each transmitting station, and

comparing the sum of the levels of all transmitted signals from each transmitting station to the maximum transmission power of said station.

21. (Previously Presented)   The computer-readable medium of claim 19, wherein the step of identifying degraded service further comprises:

determining a level of transmitted signal required from each transmitting station to each location at which signals are expected based upon said received signal level necessary for providing a quality transmission at the location and path loss between the location and each transmitting station;

summing the levels of all transmitted signals from each transmitting station; and

comparing the sum of the levels of all transmitted signals from each transmitting station to the maximum transmission power of the transmitting station.

22. (Previously Presented) The computer-readable medium of claim 19, wherein the step of identifying degraded service further comprises:

determining total interference for each base station in the service area from data defining signals received at the base station;

determining a received signal level necessary for providing a quality transmission at each base station;

determining path loss between each location and each base station;

determining a level of transmitted signal required from each location to each base station at which signals are expected based upon said received signal level necessary for providing a quality transmission at the base station and path loss between the location and each such base station; and

comparing channel transmission power to the level of transmitted signal required.

23. (Previously Presented) An apparatus for identifying degraded service in a wireless communication system comprising a processor circuit programmed to:

determine interference level for each location in the service area from data defining signals received at the location;

determine a received signal level necessary for providing a quality transmission at each location;

determine path loss between each receiving location and each transmitting station;

determine a level of transmitted signal required from each transmitting station to each receiving location based upon said received signal level necessary for providing a quality transmission at the location and path loss between the location and each base station; and

compare available transmission power to the level of transmitted signal required.